

## ABSTRACT

A transaction system for performing secure transactions over a communication network includes (i) a merchant server system including a computer processor and associated memory, the merchant server system offering items for sale; (ii) a buyer system including a computer processor and associated memory, the buyer system being selectively couplable to the merchant server system over the communication network to initiate a transaction, wherein, during the transaction, the buyer system selects one or more of the items for purchase; (iii) a security server system including a computer processor and associated memory and an encryption device, the security server system receiving buyer information from the buyer system, encrypting the buyer information in an encryption key that prevents the merchant server system from decrypting the buyer information, and transferring the encrypted buyer information to the merchant server system; and (iv) a third server system including a computer processor and associated memory, the third server system being selectively couplable to the merchant server system, wherein the merchant server system transmits at least a portion of the encrypted buyer information to the third server system for processing during the transaction.